No 1 #10

An

Inaugural Dissertation

upon the

Introduction of Foreign Substances

into the Bloodvessels.

by

Edward Sinner Coxe Philad.

admitted March 3d 1823.

"Ad i

In the p
impossi
the atten
that a
incalcu
lies, then
ing pro
whose a
succeed.
When we
of a new
although
long exper
impossib
which alo
to the me
properties
Had I un

"Ad extremos morbos extrema remedia exquisite optima" Hippoc.

In the present age when it is almost if not entirely impossible to mention a subject which has not engaged the attention of some of the brightest ornaments of that art, which has been the means of restoring an incalculable number of our fellow beings, to their families, their friends, & the world, & to add still more convincing proofs of the existence of that supreme Being, without whose assistance no art could flourish, nor any undertaking succeed.

When we see the difficulties arising from the introduction of a new medicine in the treatment of any particular disease, although recommended by men of acknowledged talents, long experience, extensive practice, & mature years, how impossible is it for a young man to have that experience, which alone should authorize a Physician to proclaim to the medical world, that this medicine possesses such properties, or that it is useful in this or that disease. Had I undertaken to write a dissertation upon any particular

disease, wh
on treatme
new, or int
Considerin
subject of
introduction
of living
the will i
the attendi
ago; & that
of the pres
substance
result of a
most acid
into the bl
therefrom; &
ten to as a m
the will in
of some of
frame is le

disease, what could I have said about the causes, symptoms, or treatment of that disease, that would have been either new, or interesting.

Considering it in this light, I have determined that the subject of my inaugural dissertation, shall be upon the introduction of foreign substances into the blood vessels of living animals

We will in the first place prove that this subject occupied the attention of some learned men, upwards of a century ago; & that notwithstanding the positive denials of some of the present day, as to the possibility of introducing any substance into the blood, without producing death, the result of a majority of their experiments, proves that the most acrid & deleterious substances, have been thrown into the blood without any injurious effects arising therefrom; & that in a number of cases this has been resorted to as a means of cure, & with the greatest success.

We will in the next place endeavour to apply it to the cure of some of the most violent diseases, by which the human frame is liable to be attacked.

Dr. George
when spre
from an
clude that
living ani
for to wha
blood; the
facts, but
ing deduc
on his eig
he performe
the Dr. of Ca
ments are
Rome May 10
eight jugu
the Dr. of Ca
Arachms o
the water o
days upron
the oozyron

Dr. George Baglivi professor of Physick & Anatomy at Rome, when speaking of the impropriety of reasoning always from analogy, says that those reason correctly, who con=
"clude that the observations made from experiments upon living animals, can be justly applied to the human frame; for to what do we owe the discovery of the circulation of the blood, the structure of the viscera, & many other important facts, but to those experiments, & the accuracy of the reason=
"ing deduced from them.

In his dissertation upon the use & abuse of blistering plaisters, he performed several experiments upon Dogs, by introducing the Tr. of Cantharides into their Jugular veins. The experi=
"ments are given in the words of his translator.

Rome May 1692 "I tyed a Mastiff dog upon a table, opened his right jugular vein & injected with a syringe two ounces of the Tr. of Cantharides, which I had made by taking two drachms of the powder of Cantharides, to six ounces of the water of Cardus Benedictus, & digesting them three days upon ashes. Upon the beginning of the injection, the dog vomited watery & slimy matter, & voided at

mouth a
jection of
with bre
than he fel
to the last
much that
without my
he drank
wine. In th
bly thirsty
much he w
able howl
having ope
upon which
mortified &
blood was ve
lation, & som
he found the
blood. In the
little polyper

mouth a viscid sort of spittle, till I had finished the in-
jection of two ounces, & sewed up the wound, & sprinkled
it with burnt vitriol. This operation was no sooner over
than he fell down, as if he had been dead. He refused to eat
to the last minute of his life, & was extreme thirsty, inso-
much that my servant moved ~~with~~ compassion, gave him
without my knowledge, about 6 quarts of water, which
he drank & presently voided a great quantity of yellow
urine. In the mean time he howled, & continued misera-
bly thirsty, but we gave him no more water. Before his
death he was seized with convulsions. He died after mise-
rable howlings, the Fourth day at night."

"Having opened his carcase, I found that part of the neck
upon which we had made the experiment was perfectly
mortified & fœtid. In the right ventricle of the heart, the
blood was very black & copious, with little or no coagu-
lation, & some drops of oil as t'were upon the surface.
We found there a small polypus continuing to a clot of
blood. In the left ventricle of the heart we found two
little polypus; & the blood dissolved, but extreme black.

the Lungs &
we found n
naturally g
of the Cant
gall bladd
not upon th
black with
drops like bo
Do we not
monly prod
ailments are
tions, arisin
to prove, tha
application
into the blood
tion, we fin
inaepenaan
that part of
found to be
Previous to

the lungs & the other viscera were sound. In the urine bladder we found not the least bit of that slimy matter, that naturally guards the inside of it: yet the rectum of the unfortunate man quoted it all. The Tale in the rectum was of a dark black. The blood that was poured upon the calling of the veins of the viscera, was very black without any exposure, & was with little drops like oil on the surface."

Do we not know that the application of blisters, & many practices, stimulating & thirst, & that constant the aliments are resorted to, in order to relieve the inflammation, arising from that stimulating. Does not this go far to prove, that the same results may be obtained application of, & the introduction of the Tr of Cantharides into the blood. On examining the appearances upon dissection, we find a very good cause for the death of the dog, independant of the quantity introduced, & acting in error loci. That part of the neck where the incisions were made, was found to be entirely mortified, & fatal.

serious to mortification taking place, inflammation

[illegible] superseded whether from the irritating quality of the poison, or from the violence of the pain. It can not be supposed that inflammation would exist in this part, without extending its influence; & proceeding either upon rays, until it reached the brain, or downwards, until the spinal became affected.

If we reason either can, a most violent disease be cured with? & when either of them do occur, is not the termination more frequently fatal?.

Exp 2nd "I laid down upon a table, a young & indifferent dog, & injected into his right jugular vein, two ounces of the [illegible] antihydrates. [illegible] & tied fast above, than the dog vomited & fell into hard rear. [illegible] after he hold out his tongue for thirst, with a great deal of anxiety, but I allowed him no water. The water seems thirsty, but would not eat. He seems rather inclined with giddiness, hiccoughs" "Having opened his [illegible] I found all the viscera sound, but the blood was very black, & resolved, & covered on the surface, with little drops like oil. The dog being young, & not very big, & no water

being allow
melted do
so that he
the same q
luminated

being allowed him, the humours were soon dissolved, & melted down by the caustic salt of the Cauchavia, so that he died in six hours. In this experiment will [illegible] for [illegible] quantity of the salt was not [illegible] in the first, it terminated fatally in 6 hours. Does not [illegible] make this be owing, except to the [illegible] of the liquor, which is [illegible] much diluted? Did not the water not by diluting the blood, & enabling the authorities to fight off more easily by urine? Unless some milder dilution is taken, length relation of the authorities overpowers the natural action of the kidneys, thereby preventing the free secretion of urine. [illegible] 37

"About ten years ago, I took a quart of Rapids in the month of July, & opening his jugular vein in the afternoon injected into it with a syringe, half an ounce of the spirit of vitriol. As soon as I had closed & dressed up the wound, the dog was seized with a shivering & shaking; he vomited, & the [illegible] great plenty of spirit; he fell down upon the ground, was breathless & seemed to be dead with vomiting, after a few hours he died.

a great pelle

by that force

bels of a le

having lice

ight pequei

[illegible] rectified spirit of wine. After the injection the dog shivered & threw all on for half a [illegible] for [illegible] then [illegible] a great plenty, [illegible] as to fill the [illegible] of life". The last [illegible] of this experiment proved to [illegible] by how foreign substances can be introduced into the blood vessels of a living animal without proving mortal. Having tied a ligature upon a [illegible] of the jugular vein of a [illegible] [illegible] giving, but the injection was [illegible] the injection". "On calling up the [illegible] "[illegible] the injection [illegible] but the other faults were found".

The distance that the spirits of wine had to go before it reached the heart, when introduced into the crural vein; the continual motion of it & its particles in consequence that motion being separated, all tended in a great [illegible] to destroy the coagulating value of that [illegible], which coagulation in the last [illegible]

by prevent
Congo
In the beg
the wou
Exa
ment
thoritus lend
maturing ex

by preventing the free circulation of the [illegible] through [illegible] lungs, caused the death of the dog.

In the beginning of 1661. I laid open [illegible] the jugular vein of a young dog, & injected with a syringe, two [illegible] of [illegible] water. After the injection was over, & the wound sewed up, the dog was seized with a violent fit of shivering & shaking, but he lived & did well" See [illegible] Vol. 1. 2. 3. 4. pages 12. 13. 15.

Dr. Edward [illegible] in his chapter de Infusione, says "Medicamenta subinde [illegible] [illegible], ut [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] de mutile, cui [illegible] [illegible] [illegible] debatur, quod pro voto operabatur, [illegible] [illegible]. [illegible] ait catharticum [illegible] injectum [illegible], quod [illegible] granis [illegible], [illegible] in essentia guiaci [illegible] [illegible] [illegible] [illegible] [illegible] in [illegible] [illegible] injectum. [illegible] in [illegible] injectum. [illegible], [illegible] [illegible] in epilepsia injectionem. [illegible]

stici cujusdam venis cum cuculi prospero in
retroversa in mipit. et. cigharalytica in pravis
si potest injecit ellen. [illegible] Fourcroy
Fothe. M.D. at 6 ae Infusione, page 434.

b. Vecis, history of the royal society, vol 2nd, May 17th year 1005.
page 488 are the following.

Torentine oil of Tobacco, was injected into the vein of a
dog's leg, without producing any effect upon him
vol 2nd, May 24th year 1005, page 00.

Eight or ten drops of pint of Tobacco, [illegible] injected into
the vein of a dog, with the effect of producing a [illegible]
[illegible] followed by vomiting.

In Willis's works on Mat: Med: vol 1, volume 7, page 35.
He mentions that Bouvius, & some others say, that Gum
or Spirits Sulphuris, may be injected to the quantity
of one or two ounces into the veins of a living dog,
without hurting him. The only remark made by the
[illegible] upon this opinion is, "sed nec Nubilo."
In the Philosophical transactions abridged by Mr
Lowthorp, vol 3rd page 1177 by the following experiments

are recorded. A Dracapuli professor of anatomy, at Pisa in Italy, having infused into the jugular & crural vein of a dog some aqua vitis diluted, the animal died presently, & being opened, all the blood in the vessels was fixed, but that in the guts not so well. The author from the above experiment makes the following reflecting. 1st. That an apoplexy being often caused, by a like coagulation of the blood, (as hath been observed by the opening made of sundry persons who died of that distemper) it might be cured by a timely infusing some dissolvent into the veins. 2nd That it is likely that that usual secret, by which Dr. Willis reviv'd recent animals without any effusion of blood, consists in some such infusion.

any. Some oil of Vitriol was injected into the veins of a dog; but he did not die of it. Though he opened it was found several times upon him. In one and twenty days, it was let go, he went into all the corners of the room, searching for meat, & having found some bones, he fell a gnawing them with a strange avidity, as if this liquor had caused in him a great appetite.

Dr. Tilricius injected about two drachms of a laxative medicine into the median vein of the right arm of three patients in the Hospital at Danzig. One of the patients was a lusty robust soldier, strangely infected with the venereal disease, & suffering grievous pains & cramps in the bones in his arms. He complained of great pain in his elbows, but the medicine began to operate in about four hours, & continued working till the next day. He made five good stools after it. Without any other remedies, these pains & cramps were gone, & there was scarce left of the disease, a cutaneous disease. The two other limbs were made upon the other two.

A married woman, & a serving maid about 20 years of age. Both had been affected with Epileptick fits from their birth, & there appeared no hopes of a cure. A medicine rather resembling an Antiepileptick Spirit, was injected into the veins of each. The first of these had twelve stools, some hours after the injection, & the next day. The fits recurring seldom & then, but much milder, & soon altogether vanished. The maid had from sixteen fits first

day, & several the day after, but by going into the air & taking
it, & not observing any rest, she cured herself in a day.
Mr. Buckhalter adventured to open a vein & infuse some
medicines into the blood of two persons in the hospital
at Pittsburgh, respectively infected with the pox, either of
them recovered, & the other died. The same Physician to-
gether with Mr. Schaffer repeated the experiment by in-
fusing salivating medicines into the veins of the right arms
of three persons; the one lame of the Foot, the other in
tolerably good health; & the third reduced to extremity by
that very distemper, viz. Lues Venerea. In succession of this
(Mr. Hawkins, who was the only person admitted to be
present at the operation) informs me was, that the sorry
man found himself pretty well the next day, & shortly
after went to work, it being harvest time, & has continued
well ever since, leaving the Hospital Aug: 17th 1768, & pro-
fessing himself cured: The apoplectical hath not had one
paroxism since: & the second, was which the Plica Polonica
had occasioned, was treated, & both these persons were
able to work.

Fontana 1690 "Gr 12 ex. malin injected into the jugular vein of a dog half an ounce of crude mercury. & observed the dog soon after to have a dry short cough, which by intervals seized him. about ten days after, I found him troubled with a great difficulty of breathing, & making a noise like that of a broken winded horse. the fourth day after the injection of the mercury he died."

In Haller's Physiology Vol. 2nd Sect. 2 no. 125 page 76. 7. we find the following. "In venas vivi animalis extraneas non recipit, alias animal post eam injectionem tinctum fuit, sive id acidi sulphureum est, sive vinum in vinum effecit. Spiritus ardentes & vinosi liquores sanguinem non tangunt, & potius sanguinem coagulant, & in venam injecti spiritus, sales diluti, aqua regia debilis animal non occidit; vinum pure vinosus diluitus, & ipse & sulphuris per campanam, paralbum animal occidit.

In the microscopical inquiries of the venerable Leeuwenhoek by Dr Hooke in part 2nd Vol. 2nd page 38 we find the following experiments. "I (Mr. Leeuwenhoek) procured a large

log. into the
small dose

dog, into the vein of one of his hind leg, we removed by a syringe a small dose of a warm solution of Opium in Sack. The effects soon became manifest as soon as we could lose the dog from the cords wherewith his feet were tied, for he immediately began to nod & reel as he walked; whereupon to preserve his life, I caused him to be kept awake by whipping, which after some time brought him to himself; so that he soon grew fat upon it. See note at page 33 of the same book in the Minutes

1st Having injected into the jugular vein of a dog two ounces & a half of the Spirit upon the dog drank in four minutes; & suffered no bad consequences of spirit of Urine injected into the jugular vein

dog, which terminated fatally in a short time.

3rd Mr Archer, of Hull, of Spt Ammonia prepared with quick lime being injected into the jugular vein of a dog; he was within a quarter of an hour convulsed over his whole body. The animal was being first opened & next the jugular, the most that was at was very flexible & the muscles strong of the same. Spirit appeared still fluid, of no. Soon after half an ounce more of the Spirit was injected, & the dog expired.

4th Having a half of a strong decoction of the Peruvian Bark, was

injected into the
was taken with
was with co
widow, he ques
the above respec
man to the
would cause

injected into the jugular vein of a dog. In a quarter of an hour, he was taken with a strong & frequent pulsation of the heart & after wards with convulsive twitchings. Half an ounce more being injected, he died convulsed.

The above experiments with serum & others were performed by Hunter in order to show the manifest alteration, that different substances would cause in the blood. Where death has ensued, we may reasonably if not to a certainty conclude that the great quantity of the substances employed was the cause, as was shown Hunter has stated in his experiments.

In the manuscript lectures of John Hunter, a man whose acuteness is as much as highly estimable than as his learning, which many of the more surprising that his opinions were not more correct. In his chapter on the humours, he says "Foreign matter does or does not disturb the body, but it must produce very from what effects, as many substances enter the blood they may be considered as coming under the description of heterogeneous matter".

With a view of ascertaining the operation of some medicines when introduced into the blood, he made the following experiments.

without perce
grains of
ed with the
Equal quan
tion of a bitch
Arteolic acc
in circumsta
from these expe
that very pro
without any
in each
ina no fecun
operation, so
use remai

4th A weak solution of tartar emetic was thrown into the veins of a dog, without producing any apparent change.

5th Two drams of Prussic diffused in ounce of water, was injected with the same effect.

6th Equal quantities of vinegar & water, thrown into the circulation of a bitch with young produced miscarriage.

7th Vitriolic acid diluted to the strength of vinegar in similar circumstances had no effect.

From these experiments Mr Hunter concludes, that it appears that very powerful medicines may be present in the blood, without any visible effect. Yet there are other substances with which animals may be killed; but these produce no permanent effects but may be repeated to any quantities, for the relief and cure of diseases while the cause remains, for example.

5th A strong solution of opium was thrown into the circulation of a dog, & occasioned violent convulsions. Upon its being thrown in he lost the use of his limbs, became quiet, breathing very laboriously & quick, with increased action of heart & arteries. The teaching of Hunter introduces

into his circulation produced great relaxation. The dog became quiet for an hour & gradually recovered.

6th Two ounces of Laurel water occasioned convulsions; his legs were drawn up to his body & relaxed, but he afterwards recovered.

7th The giving of Hydrocyanic Acid in a strong dose to a dog caused instantaneous sickness which continued near an hour. The sickness was so immediate that it could scarce have reached the heart. An injection of two ounces of water containing two drams of Jalap soon vomited him succeeded by purging & weakness with several stools, after which he was perfectly well.

8th An infusion of Tobacco had no other effect than urging the urine.

9th Ether produced immediate death.

10th Common vinegar had the same effect.

11th Diluted nitric acid disturbed him very much, but did not kill.

12th Air introduced destroyed animals

13th The serum of a putrid vesicle in a putrid fever was injected into the vein of a bitch. It produced vomiting but he recovered.

14th Dr Hunter says that when serous matter is introduced into the blood it produces death, it seems to be from the

quantity introduced being great for the vessels.

From the result of these experiments it appears scarcely possible that a doubt can be raised by the most sceptical on the practicability of injecting foreign substances into the blood, without proving destructive to life.

That great care was taken in the performance of these experiments, & that an accurate statement has been given of them, it need only be recollected that it was Doctor Thomas who performed them.

In the inaugural dissertation of Dr. Adam Clyde, a graduate in this university; page 45 & 46 are the following paragraphs.

1st. About five drams of positive serum were injected into the crural vein of a bitch. After the injection was finished, she was placed on the floor & attempted to walk, but was so weak that she fell down. In an hour & a half after the experiment was performed she appeared as well as ever, since afterwards she died.

2d. A dram of pus diluted with a little clean water, induced death in an hour & a half.

3d. A dram of fluid matter produced by highly putrid [illegible]

with some de

down hours

the gut

the

the

the injection

after the effec

pretty

graining of

calculus

medicine

pretty well

injection

with the

graining of

of the

the

the intest

with [illegible] grains of putrid pump water [illegible] death eleven hours & a half.

Twelve grains of putrid blood diluted with a drachm of clear pump water produced death in Twenty hours.

Six grains of putrid blood in a drachm & a half of clear pump water were injected into the femoral vein of a bitch. 24 hours after the experiment perfectly well; & in the day following it was perfectly well.

12 grains of putrid blood in a drachm & a half of clear pump water, were injected into the femoral vein of the bitch last mentioned. Two days after the experiment she was perfectly well.

Half a drachm of putrid blood & a drachm of clear pump water were injected into a femoral vein of the last mentioned bitch. She was perfectly well 21 hours after the injection.

45 grains of mild volatile Alkali dissolved in two drachms & a half of clear pump water, were injected into the femoral vein of a bitch. She was perfectly well 48 hours after the injection.

Thus the intention of Dr. Hylton to dispense by these experiments

the possibility of the blood of a living animal becoming poisonous, for this purpose putrid substances, were selected to inject into the veins, as offering the greatest hopes of rendering the blood putrid, if such a thing had been possible: the results of his experiments as is nearly all known entirely overthrew any theoretical opinions, that might be entertained by those holding an opposite doctrine.

" A long the mode of producing vomiting for the expulsion of solid food sticking in the oesophagus, & threatening suffocation, has been proposed & practised by some two German physicians; & is said well worthy of trial. Four grains of tart. emetic were dissolved in half an ounce of warm water, & injected by means of a syringe, with a long tube into the median vein of the arm. In about a minute the patient vomited violently, & disgorged the obstructing morsel, which before was in vain attempted to be dislodged.

Medical & surgical observ. vol. 12. & 13 page 32 of miscellaneous pa 1815

Mr. Mackenzie of the Edinburgh Medical Society, vol. 25. page 26 seq: under the head of Dysphagia thus speaks of it. "Nay it will also, can be necessary upon every occasion of

Mais il est des cas, où le médecin après avoir épuisé

sans fruit. Tout
d'une mor'
alors, n'aura
ajouter au ca
finance? Et
mot, cela se
succès, conclu
Forbeterum,
des succès. Ain
les succès des

[illegible] mit [illegible] de l'air, elle produisait [illegible] mortelle. Il ne faut plus employer, jamais, alors, n'aurait-il pas recours à un moyen [illegible], qui sans ajouter au danger, peut faire encore briller une lueur d'espérance? Et quand il n'arracherait qu'une victime à la mort, cela suffirait pour encourager son entreprise.

Cependant le docteur Kennedy, de Dublin, répète en 1868, les expériences de l'injection dans les veines, et en obtient des succès, contre l'épilepsie, la syphilis, et la rage.

Schabert, a publié dans les journaux de Göttingue, des succès aussi à la même méthode. Schweiger, 1868, et Spiegel en 1873, ont fait beaucoup d'expériences très curieuses, sur l'injection dans les veines jugulaires.

Mathieu Godefroi Sumann se fit une première fois cette opération en 1683, pour se guérir d'une gale, [illegible]. A une seconde fois pour se guérir d'une fièvre intermittente chronique. On ignore quels sont les phénomènes qu'il éprouva.

Scherbatoff et Erasti, en 1875, injectent [illegible] des [illegible] dans les veines, et [illegible]. Hahn, ayant résisté à ces expériences, eut recours

un peu à l'infusion de ses graines, de Datiale intermédiaire de Datura, pour éviter le vomissement, chez un soldat, mais l'estomac ne tolérait un morceau de lemon, se complétait, arrêté, sans qu'on ait pu en faire l'extraction, ni faire cesser l'émétique dans l'estomac. Schmucker fit revivre [illegible] comme succès, dans une circonstance absolument inutile.

Hermann Medecin allemand, grand partisan de l'infusion, a souvent répété, en 1773, les expériences de Kohler et autres, avec des résultats non moins heureux que les leurs.

Une demoiselle avait un épistaxis, qu'on voulut arrêter par l'infusion d'eau froide, sur la tête. L'épistaxis en ayant été la suite. Hermann prit le parti d'infuser une once à la fois de la [illegible] à demi gros de rose, dans deux onces d'eau, [illegible] par cure une guérison complète. [illegible] qui l'avait réduit à la dernière extrémité, fut aussi sauvé par cette méthode. Le même médecin lui infusa trois onces d'eau fort bouillante de quinquina, [illegible] d'un peu d'esprit de corne de cerf; il y eut du mieux pendant trois [illegible], mais le dérangement recommençant, on réitéra le [illegible] en infusant dans la veine une [illegible] d'heures, et l'estomac [illegible] sans peine.

Entre l'ingestion

tat.

succès. On

difficile de

ent de n'en

peu d'instrum

mes crus et

chances fa

testamos tran

contesta l'éc

ait faites pour

fises. sur des

oir établi à

Certes, l'ingestion de ces substances, n'aurait pas eu le même résultat. Les Amis, et les Prêtres, ont fort légèrement recours à l'infusion dans leur médecine vétérinaire et ils en obtiennent des succès. On sait que les ruminants, avec quatre estomacs, il est difficile de les purger. Les chevaux ne sont purgés qu'au moyen d'un seigle qui les tuerait, tandis qu'on peut avoir, en peu d'instants, cet effet par l'infusion.

L'extrait aqueux d'opium, introduit à petites doses, par les veines, en deux médecins, présente moins de dangers que de chances favorables. Nous l'avons employé seul dans contre 6 fièvres traumatiques, il y a trois ans, et nous avons incontestablement sauvé trois malades. Ces expériences ont été faites publiquement, et de l'aveu des officiers de santé majors, sur des soldats de cette ville, à l'hôpital de l'Abattoir, dirigé à Méréhmontant. Actuellement nous avons fait un bien plus grand nombre d'essais, qui ne sont pas encore publiés, puisque la proportion des guérisons n'est pas encore connue, et que cet extrait des morts qu'on a nécessairement traités, et en présence duquel on a toujours été et mal et mal, qui est en résumé très-utile, et que nous,

aussi encourageans?

L'infusion et le poison ne sont si rares, qu'on a à regretter de le voir si rarement employé. C'est surtout dans les cas, où il faut réveiller la nature affaissée, dans les cas, [illegible], l'hydrophobie, etc; à la suite de l'empoisonnement, lorsque [illegible] s'opposent invincible ment à l'ouverture de la bouche, et que la deglutition est impossible, [illegible] n'introduisant les médicamens à travers les incisives préalablement enlevées, et qu'il faut obtenir le prompt vomissement des matières ingérées, le seul moyen d'y parvenir serait d'injecter un émétique par la veine. [illegible] ce serait mettre en vie de la malade, que risque-t-on en tentant l'injection [illegible] dans ces cas? Le Père de la médecine autorise cette audace, puisque il est dit (Sect 1. Aph. 6) "Ea relinquo morbos, quæ a remedia maxime sunt optima".

Within the last few years, the Wife of Doctor has been prosecuting this inquiry, & after many, [illegible] a number of experiments, & being fully satisfied that [illegible] from them, he determined that he himself would [illegible] the subject of his last experiment, & thus to the

nical world
stands as a
tably, that p
ood vessels
vist. Lepi p
the 7th number
following,
and without
grains

medical world, that opposed to the negative denials of some he stands as a proof of positive, thereby demonstrating incontrovertibly, that foreign substances can be introduced into the blood vessels of living animals & of man himself, with perfect safety.

In the inaugural dissertation of [illegible] Robert Dunn, published in the 7th number of the Philadelphia Journal of Medical & Physical Sciences for [illegible] the following experiments of mine are required to convince the reflective that foreign substances can be introduced into the blood without producing death.

1st Half a grain of Tartar emetic in a wineglass of water produced violent vomiting & yellow colored stools.

2nd 15 grains of Tartar emetic in half a [illegible] produced vomiting in two minutes. In 20 minutes a violent vomiting & purging commenced & in 35 minutes he was [illegible].

3rd Nine grains of Tartar emetic in a watery solution, produced effects similar to those in the first experiment.

4th Half a grain Tartar emetic produced no [illegible] effects.

5th One grain of Tartar emetic in three wineglasses of water, produced vomiting after 30 minutes, & several stools.

Caused a tree

during the day.

leaves not the

introduced into

the medium

not undoubtedly

ment of medic

all of the best

medicines in

been used with

if it can be prev

is most active

chally inert, or

by produce a

"injected into the jugular vein of a large cat, half a drachm of Carbonate of Ammonia in half an ounce of warm water. It caused a prostration of strength, accompanied by convulsive twitching fits. It produced nausea, but no vomiting, the left leaving the dog, & the cat found her as well as usual."

In testimony of all the experimentalists that I have read, I find not the least possibility of a doubt; that medicines when introduced into the blood, exert their specific action upon the system in a much shorter time, than when taken through the medium of the stomach. This being fully established, we undoubtedly in acknowledging that from the commencement of medical science, we have been authorized by all of the best Physicians to resort to the most active medicines in our profession, when the milder ones have been used without producing any good effect.

It is an acknowledged that the medicines, more usually ranked as the most active articles of the materia medica, are in certain diseases, & when taken in the usual way, either wholly inert, or from the length of time required before they produce any effect; the disease has advanced

the physician
into the
may be
that beneficia
upon
will
between
tied, wand
impossible
introduction
come a man
equally

so far, that it may be deemed incurable, is it not proper for the physician to resort to the injection of these medicines into the blood vessels, in order that their powers may be felt by the system at large?

What beneficial effects, has any medicine been before time found upon Hydrophobia?

It is well known that Hydrophobia has, from the earliest ages, been ranked among the opprobria medicorum: that it still remains so, the inefficacy of all the medicines yet tried, warrants a just conclusion. Now although it is impossible for any one to say, that by resorting to the introduction of any medicine into the veins, it will become as manageable as any other disease; yet it is equally impossible to say that it will not.

[illegible] the list of [illegible] remedies remains so great, it can not be supposed that the proper remedy, or the precise time at which it should be introduced, can be laid down.

It may be objected to by some upon the plea, that a sufficient number of trials has not been made to authorize

is more of p
ich from the
uthors they co
the trials. Th
ost agonizing
in which
orting to their
eath must in

this mode of proceeding. If their objections are well grounded, which from the number of facts found in this essay from various authors they are not be, upon whom would they make these trials. Would they let a human being expire in the most agonizing torments, without making an endeavour, to avert the relentless hand of death. Could there be a case, in which a Physician would be more justifiable in resorting to this last experiment, than the one before us? Death must inevitably ensue without it, by resorting to it, we can say what would be the result.

One thing is certain; the most in the case where injections into the blood, was adopted, could be no worse than in the one where it had not been. That it will be practised at some future period, I have no doubt, & if by this means the life of one human being, shall be saved, ought not to be an inducement for Physicians to persevere, & by following the example of that one, who has sufficient resolution to throw off the trammels of theoretical nonsense endeavour to secure the list of the opprobria medicorum.

Does not Tetanus in a great majority of cases prove

upon them.
Yet not freq-
that vomiting
remedies?
Should a
what can
reading fe
introduction
illy fever pe
death. Under
ed the Phys
of bran
lmedy was

intractable to the remedies heretofore used?
The remarks made upon the preceeding disease, apply so justly to this, that it will be unnecessary to enlarge upon them.

5 Is it not frequently in Croup, a source of great regret, that vomiting can not be produced, by any of the usual remedies?

6 Should a body of any magnitude be lodged in the Oesophagus, & it can neither be pushed into the stomach, nor can any medicines pass by it, to produce vomiting; nor will the introduction of an Emetic up the rectum act sufficiently promptly to relieve the patient from impending death. under these circumstances the patient must die, & the Physician will have the unpleasant reflection of knowing, that the most powerful & certain remedy was left untried.

5 When Poison has been taken, the first injunction laid down by all is to vomit, & how often are their endeavours to do this unavailing?
In the three last cases, how beneficially might the injection

of domestic in
they could be
to profit by the
or thereform.
As it has been
greater number o
it would not
refusing to p
of saving the life
would proceed
a great variety
ficient number
among the list
vide by wishin
approbation of

of an emetic into the blood vessels, be resorted to, & how many lives could be saved, if the medical world would resolve to profit by the experiments already performed, & the facts deduced therefrom?

As it has been performed in so many instances, & in the greater number of them, the result has proved the propriety of it, would not a Physician be very censurable, in neglecting or refusing to perform that, which would be the only means of saving the life of the patient submitted to his care?

I could proceed still farther, & apply it to the last stages of a great variety of diseases, but having applied it to a sufficient number, to shew the importance of ranking it among the list of the remedies already in use, I will conclude by wishing that this dissertation may meet with the approbation of the medical Professors, to whom it is addressed.

———"———

Ina

Kuds

Ond

Un